WHAT IS CLAIMED IS:

1. A deposited film-forming apparatus comprising a reaction chamber capable of being vacuumed in which glow discharge is caused by means of a high frequency power supplied by a high frequency power introduction means to form a deposited film on a substrate positioned in said reaction chamber, wherein said high frequency power introduction means comprises an insulating material as a base constituent and has a region isolated from a glow discharge zone of said reaction chamber by means of said insulating material wherein an electrode comprising an electrically conductive metallic material having a thickness capable of sufficiently transmitting said high frequency power is disposed in said region such that it is contacted with said insulating material in a state with no clearance.

2. A deposited film-forming apparatus according to claim 1, wherein the electrically conductive material constituting the electrode has an impedance discontinueing pattern and is contacted with the insulating material in a state with no clearance.

3. A deposited film-forming apparatus according to claim 2, wherein the impedance discontinueing pattern is of a configuration in which the high frequency power propagation path is partly branched into plural portions.

4. A deposited film-forming apparatus according to claim 2, wherein the impedance discontinueing pattern is of a configuration in which a part of the high frequency power propagation path is turned up.

5. A deposited film-forming apparatus according to claim 2, wherein the impedance discontinueing pattern is of a coil-like configuration.

6. A deposited film-forming apparatus according to claim 1, wherein the insulating material is a ceramic material.

7. A deposited film-forming apparatus according to claim 1, wherein the high frequency power introduction means is provided with a cooling mechanism.

8. A deposited film-forming apparatus according to claim 1, wherein the high frequency power introduction means is provided with a heating mechanism.

9. A deposited film-forming apparatus according to claim 1, wherein the high frequency power introduction means serves as a raw material gas introduction means.

10. A deposited film-forming apparatus according to claim 1, wherein the insulating material has a portion to be exposed to the glow discharge zone and said portion has a surface roughness of 5 μm to 200 μm in terms of JIS ten-point average roughness (RZ) under JIS B0601.

11. A deposited film-forming apparatus according to

claim 1, wherein the insulating material is an alumina ceramic material.

12. A deposited film-forming apparatus according to claim 1, wherein the substrate comprises a plurality of cylindrical substrates and said plurality of cylindrical substrates are made to be capable of spacedly and concentrically arranging so as to circumscribe the glow discharge zone.

13. A deposited film-forming apparatus according to claim 2, wherein the insulating material is a ceramic material.

14. A deposited film-forming apparatus according to claim 2, wherein the high frequency power introduction means is provided with a cooling mechanism.

15. A deposited film-forming apparatus according to claim 2, wherein the high frequency power introduction means is provided with a heating mechanism.

16. A deposited film-forming apparatus according to claim 2, wherein the high frequency power introduction means serves as a raw material gas introduction means.

17. A deposited film-forming apparatus according to claim 2, wherein the insulating material has a portion to be exposed to the glow discharge zone and said portion has a surface roughness of 5 μm to 200 μm in terms of JIS ten-point average roughness (RZ) under JIS B0601.

18. A deposited film-forming apparatus according to claim 2, wherein the insulating material is an alumina ceramic material.

19. A deposited film-forming apparatus according to claim 2, wherein the substrate comprises a plurality of cylindrical substrates and said plurality of cylindrical substrates are made to be capable of spacedly and concentrically arranging so as to circumscribe the glow discharge zone.

20. A deposited film-forming process comprising introducing a raw material gas and a high frequency power into a reaction chamber capable of being vacuumed and containing a substrate positioned therein to cause glow discharge by means of said high frequency power whereby forming a deposited film on said substrate, wherein the introduction of said high frequency power into said reaction chamber is conducted by a high frequency power introduction means comprising an insulating material as a base constituent and having a region isolated from a glow discharge zone of said reaction chamber by means of said insulating material wherein an electrode comprising an electrically conductive metallic material having a thickness capable of sufficiently transmitting said high frequency power is disposed in said region such that it is contacted with said insulating material in a state with no

clearance.

21. A deposited film-forming process according to claim 20, wherein the electrically conductive material constituting the electrode has an impedance discontinueing pattern.

22. A deposited film-forming process according to claim 20, wherein the high frequency power is of an oscillation frequency in the range of from 20 MHz to 450 MHz.

23. A deposited film-forming process according to claim 20, wherein the high frequency power introduction means is cooled.

24. A deposited film-forming process according to claim 20, wherein the high frequency power introduction means is heated.

25. A deposited film-forming process according to claim 20, wherein the substrate comprises a plurality of cylindrical substrates and said plurality of cylindrical substrates are spacedly and concentrically arranged so as to circumscribe the glow discharge zone.

26. A deposited film-forming process according to claim 21, wherein the high frequency power introduction means is cooled.

27. A deposited film-forming process according to claim 21, wherein the high frequency power introduction

means is heated.

28. A deposited film-forming process according to claim 21, wherein the high frequency power is of an oscillation frequency in the range of from 20 MHz to 450 MHz.

29. A deposited film-forming process according to claim 21, wherein the impedance discontinueing pattern is of a configuration in which the high frequency power propagation path is partly branched into plural portions.

30. A deposited film-forming process according to claim 21, wherein the impedance discontinueing pattern is of a configuration in which a part of the high frequency power propagation path is turned up.

31. A deposited film-forming process according to claim 21, wherein the impedance discontinueing pattern is of a coil-like configuration.

32. A deposited film-forming process according to claim 21, wherein the substrate comprises a plurality of cylindrical substrates and said plurality of cylindrical substrates are spacedly and concentrically arranged so as to circumscribe the glow discharge zone.